

CLAIMS

I claim:

1. A method for winding and slitting a paper web, comprising the steps of:

5 dividing a web longitudinally into a plurality of slit webs of selected widths; winding the slit webs about roll centers, to form rolls at a winding station; periodically cutting the web in the cross machine direction with a web-
severing device in conjunction with a roll set change on the winding station, wherein the improvement comprising:
10 alternately splitting the web with a first slitter assembly, and simultaneously adjusting a second slitter assembly into selected slitting width positions followed by cutting the web in the cross machine direction, followed by splitting the web with the second slitter assembly, and simultaneously adjusting the first slitter assembly into alternative selected slitting width positions.

15 2. The method of claim 1, wherein in the first slitting assembly and the second slitting assembly are disposed in succession along the travel direction of the web.

20 3. The method of claim 1 wherein, during the roll set change of the winding operation, the first slitter assembly is driven into an open position in order to produce a desired length of full-width web, after which the second slitter assembly is driven into a slitting position in order to divide the web into slit webs.

25 4. The method of claim 3 wherein the periodic cutting of the web in the cross machine direction is obliquely to the web travel direction at an area of the desired length of full-width web.

5. The method of 1 wherein, prior to the roll set change at a first winding station, the slit webs are wound into finished rolls and a second winding station is prepared for winding by inserting new roll centers in place and driving the winding station to a synchronous speed with the speed of the web.

5 6. The method of claim 1 wherein, in conjunction with the operation of the web-severing device, glue or similar adhesive is applied to an area of the full-width length of the web, close to the severing point of the web, in order to attach a tail of the web to the roll centers at the winding station .

10 7. The method of claim 1, wherein the web is wound into finished rolls immediately from a papermaking machine.

8. The method of claim 7, wherein the web is passed from the papermaking machine to the winding station via a drawing nip formed by two rolls.

9. The method of claim 1, wherein the method is used after an unwinder operating with a flying change of reeling drum.

15 10. An apparatus for slitting and winding a paper web comprising: a paper web, defining a direction of travel, extending through a first splitter assembly, a second splitter assembly, a web-severing device, and a winder station, the winder station having a plurality of roll centers, on which split webs are wound, wherein the first splitter assembly and the second splitter assembly are arranged to alternate in cutting the web, and each of the first splitting assembly, and the second splitting assembly being adjustable, when not cutting the web, to vary the web slit widths, to alternatively cut varying web widths.

11. The apparatus of claim 10, wherein the first slitter assembly and the second slitter assembly are disposed in succession along the travel direction of the web.

5 12. The apparatus of claim 10 further including two winding stations, which alternate in receiving the split webs.

13. The apparatus of claim 10, wherein said web-severing device is adapted to cut the web obliquely to the web travel direction.

10 14. The apparatus of claim 10, wherein said web-severing devices include means for applying glue or similar adhesive close to a severing point of the web in order to attach a tail of the web to the roll centers.

15. The apparatus of claim 10 wherein said apparatus is disposed after a papermaking apparatus selected from the group consisting of: a papermaking machine, a coating machine, and a web finishing line, so as to receive the web directly from said apparatus.

15 16. The apparatus of claim 15, further comprising a drawing nip for passing the web from the preceding papermaking apparatus to the first splitter assembly and the second splitter assembly, the drawing nip for keeping a proper tension of the running web at its delivery from said preceding processing step.

20 17. The apparatus of claim 10, wherein the apparatus is disposed immediately after an unwinder equipped with a facility for flying reeling drum change.

18. A method for winding and slitting a paper web, comprising the steps of:

5 alternately splitting a moving web, which defines a travel direction, with a first slitter assembly to divide the web longitudinally into a first plurality of slit webs of selected widths, and simultaneously adjusting a second splitter assembly into a second selected slitting width position followed by cutting the web in the cross machine direction with a web-severing device in conjunction with a roll set change on a winding station which receives the web from the slitter assemblies, followed by splitting the web with the second splitter assembly, and simultaneously adjusting the 10 first splitter assembly into alternative selected slitting width positions.

19. The method of claim 18 wherein the first slitting assembly and the second slitting assembly are disposed in succession along the travel direction of the web.

20. The method of claim 18 wherein, during the roll set change of the 15 winding operation, the first slitter assembly is driven into its open position in order to produce a desired length of full-width web, after which the second slitter assembly is driven into its slitting position in order to divide the web into slit webs.